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**PATENT** 

## IN THE UNITED STATES PARENT AND TRADEMARK OFFICE

In re application of: Makoto FUJINO

Attorney Docket No.: MES1P057

Application No.: 09/977,063

Examiner: Unassigned

Filed: October 11, 2001

Group: Unassigned

Title: PRINT CONTROL APPARATUS HAVING SATURATION ENHANCING FUNCTION AND CORRESPONDING PRINT CONTROL METHOD

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on February 4, 2002.

Signed:

Lara M. Nelson

## PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Prior to examination, please enter the following amendments.

## IN THE SPECIFICATION

Please **AMEND** the specification as follows:

- I) Please delete the paragraphs beginning on Page 14 line 9 and ending on Page 15 line 12.
- II) In the brief description of the drawings section please replace the description of Figs. 5-14 (beginning on Page 15, Line 22 and ending on Page 16, Line 13) with the following:

- Fig. 5 is a flowchart showing the saturation enhancement process carried out in the first embodiment.
- Fig. 6 is an xy chromaticity diagram showing comparison between the color gamut in the sRGB color system and the color gamut in the wide gamut RGB color system.
- Fig. 7 conceptually shows linear mapping to convert image data in the sRGB color system into image data in the wide gamut RGB color system.
- Fig. 8 shows the orthogonal coordinates of the RGB image data where the respective orthogonal axes represent the R, G, and B axes.
  - Fig. 9 conceptually shows a hexagonal pyramid color mode.
- Fig. 10 shows a process of calculating the saturation (chroma) S and the hue H in the hexagonal pyramid color mode.
- Fig. 11 shows an example of the enhancement coefficient Kh stored as the function of the hue H.
  - Fig. 12 shows an example of the preset correction coefficient Ks.
- Fig. 13 is a flowchart showing a saturation enhancement process carried out in the second embodiment.
- Fig. 14 is a flowchart showing another saturation enhancement process as a modified example of the second embodiment.

## **REMARKS**

Should the Examiner have any questions regarding this Preliminary Amendment, please do not hesitate to contact the undersigned.

Respectfully submitted,

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Fig. 5 [shows the principle of signal conversion adopted in the printing system of the embodiment;] is a flowchart showing the saturation enhancement process carried out in the first embodiment.

Fig. 6 [shows the outline of a signal conversion process carried out by the print control apparatus of the embodiment;] is an xy chromaticity diagram showing comparison between the color gamut in the sRGB color system and the color gamut in the wide gamut RGB color system.

Fig. 7 [is a flowchart showing the signal conversion process carried out by the print control apparatus of the embodiment;] conceptually shows linear mapping to convert image data in the sRGB color system into image data in the wide gamut RGB color system.

Fig. 8 [shows a format of image data output from a printer driver to the color printer;] shows the orthogonal coordinates of the RGB image data where the respective orthogonal axes represent the R, G, and B axes.

Fig. 9 [shows the outline of a decoding process carried out by the color printer of the embodiment;] conceptually shows a hexagonal pyramid color mode.

Fig. 10 [is a flowchart showing the decoding process carried out by the color printer of the embodiment;] shows a process of calculating the saturation (chroma) S and the hue H in the hexagonal pyramid color mode.

Fig. 11 [shows an example of a logic circuit for the signal conversion process and the decoding process;] shows an example of the enhancement coefficient Kh stored as the function of the hue H.

Fig. 12 [shows an ink composition used in a color printer of a second embodiment;] shows an example of the preset correction coefficient Ks.

Fig. 13 [shows observed lightness of various inks used in the color printer of the second embodiment;] is a flowchart showing a saturation enhancement process carried out in the second embodiment.

Fig. 14 [conceptually shows a process of decoding image data, which has been subjected to signal conversion, in a printing system of the second embodiment;] is a flowchart showing another saturation enhancement process as a modified example of the second embodiment.